UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,973	01/28/2002	Yasushi Koike	03500.016125.	6705

5514 7590 07/27/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
EASHOO, MARK	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,973	KOIKE, YASUSHI	
	Examiner	Art Unit	
	Mark Eashoo, Ph.D.	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *1-13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14,15,17-19,21,23 and 25* is/are rejected.

7)☒ Claim(s) *16,20,22 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *(2 ea.)*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of claims 14-25, claim group II, in the reply filed on 23-APR-2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claim grouping, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 23-APR-2004.

Information Disclosure Statement

The information disclosure statement filed 24-APR-2002 and 06-JUN-2002 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, they have been placed in the application file and the information referred to therein has been considered as to the merits.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14, 15, 17-19, 21, 23, and 25 are rejected under 35 USC 103(a) as being unpatentable over Gonzales et al. (US Pat. 6,007,005).

Regarding claim 14: Kragle et al. teaches the claimed process of producing a recycled ABS alloy/blend, comprising: blending a recycled ABS with PC, polycarbonate (1:5-11 and 5:14-22); blending a recycled ABS resin using conventional well known techniques (5:14-28); pelletizing the final recycled ABS resin (5:29-32); grinding/shredding ABS product to a size of about 3/8 inch or 9mm (4:13-30); washing the shredded product (4:30-67); and drying (5:1-2).

It is inherent that melt-mixing is the conventional technique for blending the PC and ABS resins since Gonzales et al. desires homogenous properties such as tensile strength and impact resistance which come about only through intimate molecular mixing.

It is noted that Gonzales et al. refers to pelletizing the "recycled ABS" (5:29-32). However, since Gonzales et al. refers to the "recycled ABS" as being blended with PC according to the properties desired for various applications (5:15-20), a person of ordinary skill in the art would readily understand that the formation of pellets for conventional products, as taught, refer to the blended resin.

Although Gonzales et al. does not teach the proportion of water to the ground product during washing, however, such ratio would have been obvious as optimized through routine experimentation to ensure adequate cleaning. Similarly, Gonzales et al. does not teach the moisture content of the dried product, however, such moisture content would have been obvious as optimized through routine experimentation to ensure adequate drying to prevent entrapped moisture from causing molding difficulties.

Regarding claim 15: Gonzales et al. further teaches removing contaminates using a cyclone or air separator (4:23-30). Although Gonzales et al. does not teach the exact bulk density of the contaminates removed using the cyclone, removal low bulk density would have been obvious if not inherent because Gonzales et al. suggests that low bulk density materials such as paper are removed in this step.

Regarding claims 17 and 18: Gonzales et al. further teaches removing contaminates having a density higher than the ABS by gravity separation during washing (4:39-67).

Regarding claims 19 and 21: Gonzales et al. further teaches removing metal/ferrous based contaminates using a magnet (4:13-22). Although Gonzales et al. does not teach the magnetic flux used, it would have been obvious to have determined an appropriate magnetic flux through routine experimentation to achieve the separation taught by Gonzales et al.

Regarding claims 23 and 25: Although Gonzales et al. does not teach the a specific impact strength, Gonzales et al. does suggest that that the recycled ABS is blended to produce a composition for a desired application based upon properties such as impact strength. As such, a person having ordinary skill in the art would have found it obvious to have optimized the mechanical properties through routine experimentation to ensure the desired properties for the application are reached. Similarly, Gonzales et al. does not teach the color difference between the recycled resin and a virgin resin, however, color matching of materials is well known in the molding art and would have been obvious, if not inherent Gonzales et al., in order to form a desired color for a specific molded article in which blended material is to be used.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form PTO-892).

Allowable Subject Matter

Claims 16, 20, 22, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 16, 20, and 22 requires the a specific stepwise order of known operations which are different from the order taught by the prior art (see Gonzales et al.). No motivation is present in the prior art to suggest a change from the order of steps taught by Gonzales et al.

Claim 24 requires that the recycled ABS resin have a melt flow rate at most 1.2 times that of virgin ABS resin. EP 1,036,651 teaches that virgin or extrusion grade ABS resin normally has a melt flow rate/index of about 5 whereas recycled ABS exhibits a melt

flow rate/index in the 20's or about 4 times that of virgin ABS. As such, the prior art of record provides no evidence or teaching of recycled ABS resin having a substantially lower melt flow rate/index.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

26/Jul/04

26-Jul-04
me